status

NEWSLETTER

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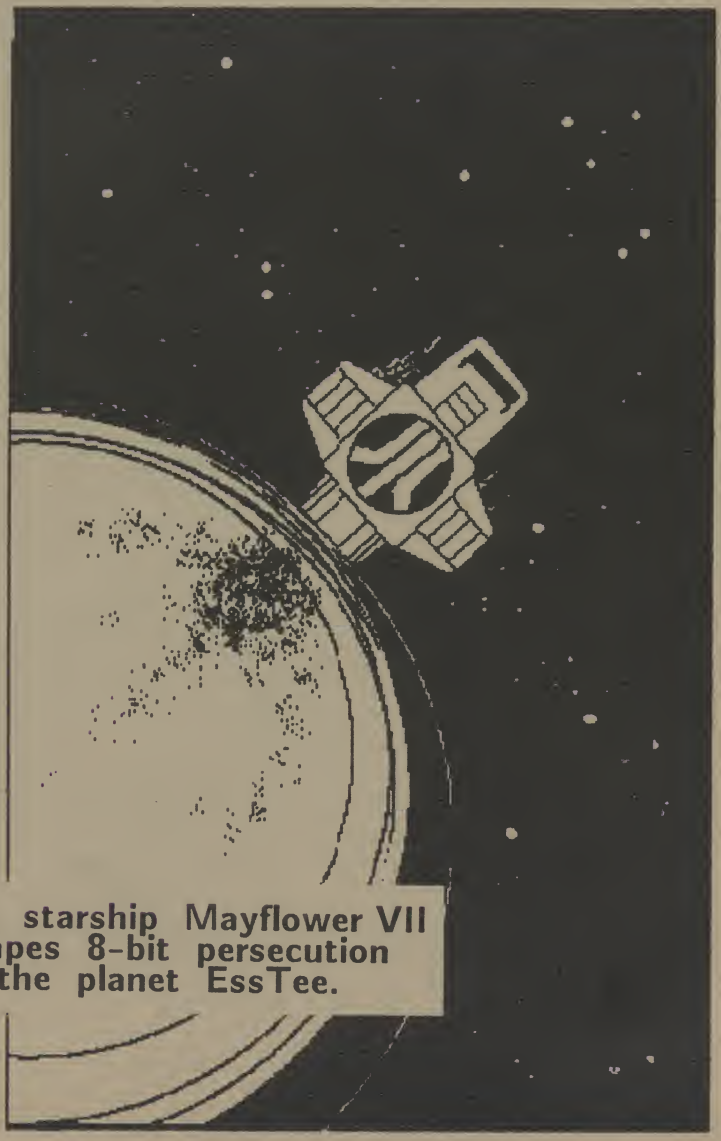

above: The starship Mayflower VII escapes 8-bit persecution on the planet EssTee.

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1-804-468-1096

Editor's File

I'd like to do something this month, that most editors, writers or other literary types like to do as often as possible: add a new word to the english language. Why do we like to do it? Call it the urge to express ourselves, call it a need to help our fellow man... call it ego.

The word I'd like to add to the language this month is based on several other words: **bi-costal, bicultural** and **bilateral.** What do these words have in common with the word I'd like to introduce? They all refer to someone or thing that splits its time, energy and resources between two different interests. With that in mind, I give you the latest entry into our language:

Bi-bit *adj* ('bi-bit) **1:** person or persons who spilt their computing time between systems with differing processors. <Having purchased a 520ST, Walter had become **bi-bit.**>

It seems that at every meeting I talk to someone who has just purchased, is about to purchase, or is planning in the near future to purchase a 16-bit system. The trend is clear. We want our ATARI STs! In a recent survey of new ST owners, over half of those who responded said that they planned on keeping and using their 8-bit machines. It seems obvious that we want to have our cake and eat it too.

I see nothing wrong with this trend, in fact I think it will work to the ATARI user community's benefit, by providing a link between those who are embracing the new technology and those who are still watching from the sidelines. So if you've recently joined the ranks of the 16-bit user, yet maintain the use of your trusty 8-bit, wear your **bi-bitterness** with pride...

This months issue brings us another stirring installment of **Telecomputing** (by Doug "Bi-bit" Boynton), an update on the latest in RAM modifications (by Dick "Me too!" Litchfield) an opinion piece by Henry Colonna regarding software piracy, a review of **Starglider** for the ST and a do-it-yourself ring detect mod for the 1030. Whew! That ought to keep you off the streets for awhile...

Until next month, have a happy and safe **Thanksgiving...**

TELECOMPUTING

By Doug Boynton

Scrunch, squish, squeeze, library, and archive. Oh yeah, tiny and Koala, too. What does it all mean?

Well, It's no mystery... and the whole process can save you a buck or two along the way, especially if you're a subscriber to CompuServe or GEnie, or call those out-of-town bulletin boards with any consistency.

They're all ways of making files smaller or more compact. The reasons are fairly simple. It saves the bulletin board System Operator (SysOp) space, and it saves you money if you're paying for the time you're on the system.

Without getting into the technical aspects of the various methods (I don't understand it, anyway), let's try to forge ahead and explain how the methods work and how you should handle these files. Let's call the generic term for these various methods "file compression". It's not always accurate, but it'll do for our purpose.

First, for 8-bit Atari users. The most familiar (and common) example of file compression is the Koala (or Touch-Tablet) picture file. Standard 8-bit Atari graphics 8 screens take up 62 sectors. Never any more, never any less. In the "old days" (say around 1982 or so), every major graphic program for the Atari 800 used 62-sector graphic files. Then the Koala Pad came on the scene.

The whole process can save you a buck or two along the way...

The folks at Island Graphics (designers of the Koala Pad program) came up with a way to put that same information into a smaller file. How much smaller depended on how detailed the picture was. Without going into too much of the technical stuff, it had to do with characters (bytes of data) in the file that are repeated. Think of it this way. If you were dictating a typewritten page to someone, and the original document contained the line:

File Compression.....Page 42

It would be quicker to say, "File Compression, 7 periods, Page 42" than it would to say, "File Compression, period, period, period, period...". The philosophy is

the same. Using the old system, a totally blank screen would take the same 62 sectors to save; a Koala Compressed file would save the same information in four sectors. The philosophy is the same. That's as technical as I can get. (Thank goodness!)

If you use the same technique on a non-picture file, the result is a "squished" 8-bit Atari file. It takes up less room, and is more quickly transferred by modem. Of course, once you download the file, it's useless unless you "unsquish" it...and restore it to its original form. This is the difference from Koala files, because the Koala (or Touch-Tablet) program does all of this automatically.

"Scrunch" is another 8-bit technique. "Scrunch" doesn't actually compress the file; instead, it combines several (usually related) files into a single (combined) file. For example, let's say a game program requires a BASIC program file, a couple of graphic files, and a couple of machine language routines. The old method of transferring these files by BBS would require you to download each one individually, and usually rename them to something else. Copious note-taking was required, and if you mis-named a single file, the whole mess wouldn't work right.

"Scrunch" combines all the files into a single file. Once the file is transferred, it is "unscrunched" onto a blank disk. This method has the added advantage of being able to send those ultra-modified DOS files that were heretofore un-transferable. (It has to do with the three boot sectors, but we won't get into that!)

I have yet to see files that are both "scrunched" and "squished" for the 8-bit Atari, but it's possible, and don't be surprised if it shows up in the future. In that case, you would first "unscrunch" the file, then "unsquish" each of the individual files.

ST owners: Your equivilents are "squeezed" files (compressed or shorter files), and "library" files (many files combined into one). For the ST, I have seen files that required both "unsqueezing" and "delibrary" actions. Becoming more popular, though, for the ST, is a process called "archive" which combines both actions in a single process. In fact, CompuServe is now asking that all ST files that are uploaded be "archived". Sooner or

later, we may reach a standard.

Oh, yes. One other thing for ST owners. The standard ST graphics picture saved by DEGAS or NEOChrome is about 32K long. Your version of Koala files are called "tiny" files. DEGAS Elite (the upgraded version) will be able to handle them through a public domain desk accessory. There are currently public domain viewing programs and conversion programs for "tiny" files to make them compatible.

So, then, for the 8-bitters, part of your telecomputing arsenal should include "SCRUNCH"and"UNSCRUNCH" (Combined in a program called "SCRUNCH2");and"SQUISH"and "UNSQUISH". I haven't yet seen a combined program for those two.

ST owners should have the files "SQUEEZE.TTP" and "UNSQUEEZ.TTP" (Squeezing and unsqueezing); "LU.TTP" and "DELIB.TTP" (Library and delibrary); and "ARC.TTP", an all-in-one archive program. To view "tiny" picture files, grab a copy of the public domain "TINYVIEW.PRG".

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Other items this month: Have you gotten a your copy of "Online Access Guide" yet? A sample copy was mailed to GEnie subscribers. It's a typical hi-tech rag. The publishers obviously think that the fact it's designed for "business" computer users justifies the $4.95 cover price. Don't waste your time ...or more importantly, your money. You'll do better with a subscription to "InfoWorld" or "Computer Shopper".

NEXTMONTH:WHAT'SA HARD DISK, AND WHY DO WE WANT ONE?

RAMifications II

by Dick Litchfield

Our newsletter exchange program brings us many informative articles on software and hardware modifications. Of particular interest to me is the newsletter from the WindHover folks. (Hi Jay) Their newsletter always has some interesting articles for hardware tinkers like myself.

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A novice would probably have a lot of questions...

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The May/June 1986 letter contained an update on the SuperRam series for the Atari 800. Since I seem to love (?)

doing ram modifications, I fired up the old soldering iron and started chopping on yet another 16K memory card. Here's how it went...

SuperRam I Plus

SuperRam I Plus offers 3 new options for making the SuperRam I (aka Atari 800 Plus) Axlon compatible. Option 1 is the most complex, but it gives you 100% WindHover and Axlon compatibility. After reviewing the three options, I chose to build option 1. Construction was easy and the mod works like a champ. All my ramdisk programs worked as before and now SynCalc and SynFile+ utilize the extra ram through bank switching. Broderbund's Print Shop Companion also works.

Option 2 is simpler, however Dr. Torres cautions that "200ns or slower DRAMs will cause a crash with some software. I did not do this mod after having such success with option #1. I fail to see any advantages that could be gained on this one.

Option 3 is even simpler, but I do not recommend this option. Several STATUS members (including myself) implemented this mod several months ago with mixed success. We found it worked "sometimes" with SynCalc and SynFile. We also had problems with other programs being incompatible with this option.

To sum it up for "SuperRam I Plus", I highly recommend option 1 for those of you who already have the 800's with the WindHover SuperRam mod installed. The added Axlon compatibility will allow you to use software written for the Axlon and XE/Axlon banked memories. For those die hard Atarians with "stock" 800's, you may be interested in yet another Axlon compatible mod. Read on and remember I said "may be interested".

Also in the newsletter is the latest WindHover SuperRam modification for the Atari 800. Dr. Torres has named this one...

SuperRam II

The SuperRam II modification is "100% Axlon compatible" according to Dr. Torres. All modifications are made to the memory board in memory slot #2. Dr. Torres provides little other details except to say this mod is NOT WindHover software compatible. For those who may be interested in

this mod, please read on before you make your final decision.

I recently completed the SuperRam II mod. I undertook the project as a favor to a fellow club member and to satisfy my curiosity. Believe me, this mod is not as easy a SuperRam I. To begin this tale of woe, we should start with the documentation.

Both the SuperRam columns in the May/June issue were rushed to press. This is evident from all the typos and the poor quality figures and schematic for SuperRam II.

The step by step instructions start off with the tried and true conversion of the power and address lines to the memory chips. Having done a number of memory mods it was easy for me to breeze through this despite the poor quality of the reference figures. A novice would probably have a lot of questions.

The schematic provided, however, was a nightmare. The original was drawn on graph paper and then run through a copier. The result was a copy of graph lines and schematic lines that were hard to distinguish between. I have since edited the text (typos only), redrawn the schematic and they are now available from the STATUS library.

The next problem was obtaining the needed IC's (chips). A number of the IC's were not available locally. Fortunately for me, I was able to get all but two of the chips at a local Hamfest. After some negotiating, a local supplier agreed to order the remaining two chips. The real kicker was paying $6.00 for a 74LS569 (By the way, all the mail order places I called never even heard of it).

Construction was on par with the labor involved in the first 288k memory mod I ever did. It's best to take it slow and easy. Double check each step of your construction as you do it and then again BEFORE you place the completed board in your trusty 800.

After construction is complete, you still have one last problem. Which DOS will you use? WindHover, SNACC, and Atari DOSes will not work. MACHDOS3.7A worked, however it is not one of my favorites. Sparta DOS and TOPDOS support the Axlon and should work. Whew! Enough problems. The mod works. Print Shop Companion, SynCalc and SynFile+ just pop right up with 288K available.

Conclusions! Cost and software support make **SuperRam I** and the **SuperRam I Plus** the choice in my opinion. The Axlon compatibility will keep me from buying an XE, however, WindHover also has a memory mod for the 520ST that I haven't tried!

Yea, that's the ticket, a 520ST, modified of course.

Late note: I just bought a 520ST. Now I'm counting down the warranty before expanding it to 1MEG.

Death of the 8-bit

By Henry Colonna

[**Editor's Note**: This topic seems to be taking up a lot of column space in Newsletters around the country, and we're no exception. If you would like to respond to some of Henry's comments, please don't hesitate to get in touch...]

Gasp! Did I just type that? Let me recheck the top of my PaperClip screen to see what my fingers just did. Yep, that's what they typed! Death of the 8-bit! How can that be so? The Atari 8-bit is the most powerful 8-bit ever made. And Atari is reportedly selling 30,000 XE's per week. That's a bunch of computers, probably more per month than have ever been sold before, causing Atari to think about a new XE line with lots of features.

My 8-bit Atari, as of the very end of August, 1986, currently has word processing software far better than either the ST model or the Amiga, with the exception of 80 columns, and that will be remedied with Atari's great 80-column adaptor for the XE. By the end of the year there will be some heart-stopping ST and Amiga word processing packages, but now I could easily argue that the 8-bits have the edge.

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Estimates... are that ten copies of a program are stolen for every one that is sold...

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The 8-bit Atari has a better graphing program (B/Graph) than anything yet available on the sixteen bits. In fact, the only graphing I've seen is crude and done from a clone of an IBM product. Again, B/Graph Elite will be released for the ST and the Amiga eventually, and will annihilate B/Graph for the 8-bit, but right now, the 8-bit doesn't just hold the edge, it is clearly superior.

SpartaDOS is an extremely flexible 8-bit Atari DOS that has more power than GEM/TOS on the ST. A product named Micro-C Shell from Beckmeyer on the ST is far more powerful than SpartaDOS, but the 8-bit Atari can certainly be very proud of what it has to offer.

Eventually both the Amiga and the ST will greatly outshine any 8-bit, simply because of the great horsepower of the 68000. The 8-bit has been around for over six years, while the 16-bitters are too new for the especially fantastic software to have been programmed. The software available for the 8-bits in the first year of their production was pathetic; it takes a while for programmers to take full advantage of a new computer. But, if my 8-bit software can even remotely compete with, much less outshine, the 16-bitters right now and for the next few months, why would I dare entitle my article "Death of the 8-bit?". Aren't I saying that 8-bits still have lots to offer?

The reason that the 8-bits are dying, or perhaps even dead, is illustrated by sales of programs such as SynFile+, DataPerfect, and Megafiler, (the database programs for the 8-bit). There are about 350 copies sold per month, while SynFile+ alone accounts for 250 per month. These figures are pathetic, and don't nearly compensate for the work that Steve Ahlstrom and Dan Moore put into SynFile+. There are over a million 8-bit Atari's out, and as I said earlier, 30,000 8-bits are sold per month. Where are these folks getting their databases from?

According to OSS, Atari, and Batteries Included, sales of The Writer's Tool, Atari-Writer and AtariWriter Plus, and PaperClip, are just as pathetic. The people who wrote these programs spent at least 6-months writing them. That's their 9 to 5 job; how they make their money; and how they feed their children and buy their Duracell batteries just like the rest of us. Their salary depends on the sale of their products. Some products don't sell well because they are inferior, of course; but if the total number of word processing programs sold per month is abysmal, and the total number of databases sold per month is abysmal, then programmers do not write productivity software any more! They have to feed themselves somehow.

What's happening is that these products are stolen regularly. Estimates from Synapse and Batteries Included (which I will back up from what I have seen) are that ten copies of a program are stolen for every one that is sold. Remember the months of work put into developing and writing something as powerful as SynFile+. Think of the frustration that a programmer experiences when he pulls out his hair because of an obscure bug. Think of the irritation experienced by the programmer when he discovers that a small miscalculation in the early stages of writing a program is going to require weeks of re-coding, weeks of wasted work. This is the life of a computer programmer - anyone who has typed in a simple listing from Compute! and tried to get it to work can commiserate. Programmers aren't dumb, when they decide to become programmers in the first place they know what they are getting into. Programming life involves dealing with these problems and frustrations.

Hold that thought for a moment and let me throw in another monkey wrench. Did you know that there are at least two times as many Commodore 64s on the market than Atari 8-bits? Some estimates are up to five times as many C64s as Ataris. The ratio of people who steal Commodore software and people who steal Atari software is quite similar, but, with so many Commodore machines, any program released for the Commodore greatly outsells any program written for the Atari. Sales lost to stealing on the Atari can actually mean that a publisher loses money on a program. Sales lost to stealing on the Commodore means that publishers don't make as much money.

Now let's sit back down in the programmer's seat for an instant. With all the frustration that I mentioned above inherent in software development, and with the thieves being as abundant as they are, would you program for a machine when your 6 months of frustration from nine to five every day, which machine would you program for? I'd program on a C64.

If you are a teacher, think how you would feel if you were fired and a robot were placed in your job. If you are a manual laborer, think how you would feel if you were fired and a mule were placed in your job. How would your family eat? No matter what your job is, think of what would happen if you lost

that job. Every time you hear of someone stealing a copy of a program, think of losing your job, because that's exactly what's happening to the programmer, and he would feel the same if he knew about it.

Software stealing has hurt me personally. I am jealous of titles like The Bard's Tale, The Newsroom, Jet, C programming languages, Rings of Zilfin, SkyFox and others available on all other computers except Atari 8-bits. Things are not as bad as they were, since Atari is doing well. There are lots of new games for the 8-bits, but some of the best games, and almost all of the productivity titles will never see the Atari. Stealing has been so bad on the 8-bits that Electronic Arts is not programming on any Atari, even the ST, because they don't want to see their efforts lost. It is true that ST and Amiga owners are reportedly not stealing as badly as Atari 8-bit owners, fortunately, and this only guarantees a plethora of wonderful software.

I know people who are thieves of software. Some of them used to be my friends. Some of them used to 'hang out' with me. But I have learned my lesson. These people, along with anyone else who has an unauthentic copy of a commercial program, are all partially responsible for my not seeing the titles mentioned above (along with alot more), and responsible many programmers losing months of work. I am no longer friends with people who are thieves of software. These same people would be shoplifters at the grocery and department stores if shoplifting were as easy and as romanticized as software stealing.

STARGLIDER

By Jeffrey J. Williams

Zmag-a-zine: October 28, 1986

It is tough to figure out which is more fun to do... playing **Starglider** or watching the reaction of those seeing it for the first time.

Once the novelty of playing **Starglider** has worn off a little, I guess that watching the novices has got to provide more amusement.

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You get a dizzyingly real sense of motion as you... zoom past other objects...

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To give a little back-

ground, **Starglider** is a vector graphics action game in which you pilot your Airborne Ground Attack Vehicle (AGAV) over the surface of your decimated planet, fighting the invading hordes of Egrons. The wire-framed ships, cannons, tanks, and silos slide smoothly by as you accelerate past them. One of the most unique features of **Starglider** that really draws attention is its innovative use of sound.

When the game begins, you are treated to a richly detailed title screen and some richly detailed theme music with vocals. Yes, there is a hip-sounding digitized score, complete with vocal accompaniment!

This is the part that inspires the novices. I work part time in a computer store that is heavily supporting the ST and it's product lines. When I boot up **Starglider** for someone and that sound track starts belting out, most everyone in the store will usually begin edging their way over to the ST to get a view of what is making the music. Very nonchalantly they will wend their way to the ST, trying to move slowly and casually enough to not appear overeager or **impressed** with what is happening.

Once they get to the ST, there are two typical reactions... those from non-ST owners and those from the ST owners. The non-ST owners will usually grin slightly, shake their heads, and mumble "Oh, wow!". The ST owners tend to lose muscular control of their jaw for just a moment. Upon recovering their composure, they start looking behind, beside, and under the monitor to find out where the sound is *really* coming from, because we all know the the ST has lousy sound, right <big grin>? The second reaction phase hits them when they realize the sound is indeed coming from an unaltered ST. This reaction usually involves them finding **Starglider** on the shelves and rushing it to the sales counter.

The story of **Starglider** involves the attack of your planet by the Egron forces led by the sinister Hermann Kruud. Slipping by your planet's Sentinel defense system by disguising his attack ships to look like stargliders, large space-traveling birds indigenous to your planet, Kruud has successfully eliminated all planetary defenses except one. There still exists one AGAV, armed with laser bolt cannons, molecular neutralizing force shields, and proton missiles. You will pilot this ship,

skimming low over the planet's surface or zooming up to the upper atmosphere, blasting moving and stationary targets, while trying to evade the lasers and missiles being launched against you.

The control of your ship can be handled entirely from the keyboard, or almost entirely with the mouse. Two functions must be performed with the keyboard when using the mouse... launching your missiles and launching your ship from the maintenance silo (which is where you dock your ship to make repairs and replenish your laser and shield energy charges. The mouse control is extremely well done. I haven't liked most games that use the mouse as a controller (exceptions: CARDSbyMichTron,andROGUE by Epyx), but once you get used to all the functions of the mouse, ship control becomes very easy and intuitive.

The game comes with a ton of documentation, ranging from the AGAV Flight Operations Manual, the Atari ST Keyguide (explaining game controls specific to the ST), to the 64 page novella, which provides the complete background story of your planet's attack by the Egron forces and your involvement in it's defense.

Take the time to READ the NOVELLA!!!

While it does not specifically lay down rules essential to the play of the game, it does provide many helpful hints that you will have to learn sooner or later in order to progress through the game. As a matter of fact, the documentation provides needed computer control information and excellent "color coverage", but it does not clearly lay out all details about how to destroy the myriad of enemy attackers. Much of this is up to you to learn as you play the game. This is not due to neglect on Rainbird's part. It was very intentional. I find it adds to the enjoyment of the game.

One particular, and very necessary, part of the game is recharging your ship's energy. This can only be done in a dramatic maneuver involving piloting your ship low over the surface between two energy towers and streaking headlong towards a third tower. You get the details of this only by reading the novella, so READ everything at some point if you wish to play the game for more that 5 minutes at a time.

The graphics in the game are of exceptional quality if you don't mind the wire-framed vector graphics style of graphics. Even if you don't like this type of graphics, this implementation is superb. The foreground portion of the display shows a conventionally solid and colorful cockpit control panel with functional informational displays.

The world outside your cockpit is vector graphics. You get a dizzyingly real sense of motion as you accelerate and zoom by other objects.

As noted earlier, there is a digitized band and vocals at the beginning of the game. You are also treated to a female voice warning you when your ship's resources are being depleted. "Energy Low," "Damage Alert," she calmly informs you. When you launch one of your missiles, she confirms, "Missile Launched."

There are also non-digitized sound effects of exploding enemies, laser shots, warning klaxons... all very well done.

I am not much of an action/arcade game player. If I want to play arcade games, I will go to an arcade. Such games on my computer I will usually tire of quickly. But this one is an exception. I find myself playing it for hours on end to try to improve my ranking. There is a high score board at the end of the game, but high scores are not saved to disk. You will only see your name and high scores on the board during that session. Once you turn off the computer, your high scores are gone for good.

Another very nice touch is that **Starglider** can be played on a color display AND on the monochrome monitor! It doesn't say this specifically on the box. I just had my mono screen hooked up one day and decided to try booting **Starglider** up. Lo and behold, it worked... and very beautifully, I would add. Two quality products out of two. **Starglider** is from the same company that markets the exceptional adventure called **THE PAWN**. Rainbird has produced two groundbreaking games for the ST, back to back. Let's hope they can maintain this level of quality and innovation with future ST offerings.

Solid State Ring Detector

By COL. Pete Hunter
The Auctioneer BBS
(417-887-4969)

Here's what you have been waiting for if you need a ring detector for the Atari 1030 or 835 modems. No more clattering or sticking relays to listen to and best of all it will not cost over $12.00 to build unless someone holds you up for the Joystick and Telephone cords.

There are several different bulletin board programs that use ring detectors so you will have to decide if your program uses joystick port 1 or 2. I have included Radio Shack parts numbers except for the Opti-Coupler for which I am including 3 different numbers for.

You may also want to add a switch into the circuit allowing you to turn the ring detector off at times. Be very careful in your wiring and **DOUBLE CHECK** all connections for propriety. This is **NOT FCC** approved as neither is the relay version ring detector.

Parts list:

Reference	Description Catalog #
C1-C2	**0.1uF Capacitor 272-1053**
D1,D2	**1A 400v diode 276-1103**
R1	**2.2K resistor 271-027**
R2	**10K resistor 271-034**

Joystick cord and plug

Short piece of telephone cord with male plug.

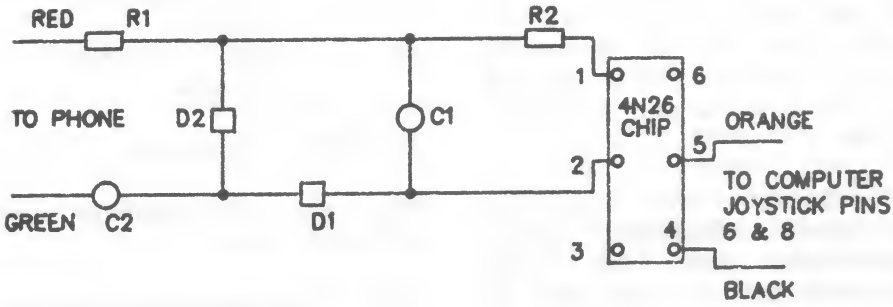
4N26 Phototransistor/Optoisolator which is the generic #(4N26) or RCA # SK2040 or ECG # 3040

You should be able to obtain the 4N26 in many brands by using the generic #.

As you may have figured out by now, the computer is optically isolated from the telephone line which gives about 1000 volt isolation. I have built and tested this ring detector so you should have no problem with it although some electronics experience would be useful. If unsure of your wiring, consult someone who has a good working knowledge in electronics...

Note:

Joystick pins 6 and 8 are the ground and trigger pins. If your program uses a different configuration such as Joystick Right etc. then change wiring accordingly.



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STATUS
Newsletter Exchange
4836 Honeygrove Road
Virginia Beach, VA 23455
(804) 499-6021

Meetings: STATUS meetings are held on the first and third Thursdays of the month at the 7-UP Bottling Company, 5700 Ward Avenue, in Virginia Beach at 7:30 p.m. All interested parties are welcome to attend.

Newsletter Articles:

Submitted articles are preferred as disk text files, but will be greatfully accepted as hard copy (including handwriting) if you do not have a disk drive. If you have a modem, you can upload your articles to the Editor by calling the STATUS BBS at 468-1096. Articles may be submitted at any time, but will probably not make that month's Newsletter if submitted less than one week prior to the first meeting of the month.

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